UTILITY PATENT APPLICATION TRANSMITTAL **(Large Entity)** *(Only for new nonprovisional applications under 37 CFR 1.53(b))*	Docket No. **AM9-99-0148**
	Total Pages in this Submission

TO THE ASSISTANT COMMISSIONER FOR PATENTS
Box Patent Application
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

SYSTEM AND METHOD FOR AN ELECTRONIC STORE ASSISTANT

and invented by:

Neelakantan Sundaresan

If a CONTINUATION APPLICATION, *check appropriate box and supply the requisite information:*

☐ **Continuation**   ☐ **Divisional**   ☐ **Continuation-in-part (CIP)**   of prior application No.: _____

Which is a:

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Enclosed are:

Application Elements

1. ☒ Filing fee as calculated and transmitted as described below

2. ☒ Specification having _____ 20 _____ pages and including the following:

   a. ☒ Descriptive Title of the Invention

   b. ☐ Cross References to Related Applications *(if applicable)*

   c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*

   d. ☐ Reference to Microfiche Appendix *(if applicable)*

   e. ☒ Background of the Invention

   f. ☒ Brief Summary of the Invention

   g. ☒ Brief Description of the Drawings *(if drawings filed)*

   h. ☒ Detailed Description

   i. ☒ Claim(s) as Classified Below

   j. ☒ Abstract of the Disclosure

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Application Elements (Continued)

3. ☒ Drawing(s) *(when necessary as prescribed by 35 USC 113)*

    a. ☐ Formal   Number of Sheets _____

    b. ☒ Informal   Number of Sheets   4 (Figs. 1-5)

4. ☒ Oath or Declaration

    a. ☒ Newly executed *(original or copy)*   ☐ Unexecuted

    b. ☐ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional application only)*

    c. ☒ With Power of Attorney   ☐ Without Power of Attorney

    d. ☐ *DELETION OF INVENTOR(S)*
        Signed statement attached deleting inventor(s) named in the prior application,
        see 37 C.F.R. 1.63(d)(2) and 1.33(b).

5. ☐ Incorporation By Reference *(usable if Box 4b is checked)*
    The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Computer Program in Microfiche *(Appendix)*

7. ☐ Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all must be included)*

    a. ☐ Paper Copy

    b. ☐ Computer Readable Copy *(identical to computer copy)*

    c. ☐ Statement Verifying Identical Paper and Computer Readable Copy

Accompanying Application Parts

8. ☒ Assignment Papers *(cover sheet & document(s))*

9. ☐ 37 CFR 3.73(B) Statement *(when there is an assignee)*

10. ☐ English Translation Document *(if applicable)*

11. ☒ Information Disclosure Statement/PTO-1449   ☒ Copies of IDS Citations

12. ☐ Preliminary Amendment

13. ☒ Acknowledgment postcard

14. ☐ Certificate of Mailing

    ☐ First Class ☐ Express Mail *(Specify Label No.):* _____

        P01ULRG/REV04

UTILITY PATENT APPLICATION TRANSMITTAL
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Accompanying Application Parts (Continued)

15. ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*

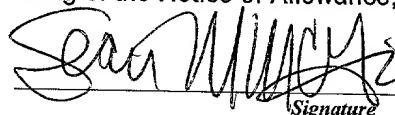16. ☐ Additional Enclosures *(please identify below):*

Fee Calculation and Transmittal

CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate		Fee
Total Claims	27	- 20 =	7	x	$18.00	$126.00
Indep. Claims	5	- 3 =	2	x	$78.00	$156.00
Multiple Dependent Claims (check if applicable) ☐						$0.00
					BASIC FEE	$690.00
OTHER FEE *(specify purpose)*		Assignment Recordation				$40.00
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Signature

Dated: **September 29, 2000**

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APPLICATION
FOR
UNITED STATES
LETTERS PATENT

APPLICANT: Neelakantan Sundaresan

FOR: SYSTEM AND METHOD FOR AN
               ELECTRONIC STORE ASSISTANT

DOCKET NO.:   AM9-99-0148

SYSTEM AND METHOD FOR AN ELECTRONIC STORE ASSISTANT

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a system and method of electronic commerce ("e-commerce"), and more particularly to a system and method for bringing an electronic shopping experience closer to a "normal" (e.g., traditional) shopping experience by defining an "electronic store assistant" (hereafter, an "e-Store assistant") which helps electronic shoppers who are "lost" while browsing for an item (e.g., a product or service) in an electronic commerce (e-commerce) site.

Description of the Related Art

As increasing numbers of people use computers for shopping through e-commerce stores, these stores would be expected to allow the users to provide facilities that bring them closer to a normal shopping experience. However, this has not been the case.

Presently, the conventional systems merely provide electronic shopping carts where the user adds purchased items, and express check-outs where the user may leave the e-commerce site at the earliest time if the orders are small and fixed.

However, there are few other features which bring the electronic shopping experience closer to a normal, traditional shopping experience. Indeed, there has not been provided (nor the

advantages recognized) of allowing an e-store assistant to help a user who is lost while shopping.

Typical e-stores have shopping aisles which are basically categories. These categories are further divided up into subcategories and so on. However, the names of the categories may not be exactly representative of all the items that are found in each category. This is a problem and leads to inefficiency and frustration for the user.

For instance, there may be a category that indicates "Baking Needs" and another category that indicates "Tea and Coffee". The user who is looking for "Brown Sugar" may wander into the wrong category without knowing which of these areas should (or is) actually be carrying "Brown Sugar". Further, the user might be looking for "Glucose powder" which could be in any of these categories, or may be in a totally different category (e.g., "Health Foods").

Another problem is that the user may not have an exact description of the product. This may cause the user to go to each aisle that the user thinks is related to it and try to search for it. This is very inefficient for the user.

For instance, the user might be looking for a light bulb that will fit a particular electrical fitting. If the user is shopping in a specialized electrical store, the user might go into different categories of electrical fittings, and appliances, and type in words like "bulb", "halogen", and so on. However, there is no guarantee that the user will be able to find the item.

Further, it is noted that the Microsoft Word® program has the notion of a static assistant which keeps track of the input typed in a Word document and provides tips. However, this does not work in an e-commerce environment. Along these lines, it is noted that most e-commerce sites have "Help" facilities, but do not provide a dynamic shopping assistant. Any "help" is provided in a static, predetermined manner.

Thus, hitherto the present invention, there has been no feature to help the user to

efficiently find the item (e.g., product or service) desired by the user. As a result, an inefficient

shopping session results. That is, prior to the present invention, there have been few facilities for

bringing electronic shopping experience closer to a normal shopping experience, and none which

have allowed an e-store assistant to help a user who is lost while shopping.

5

SUMMARY OF THE INVENTION

In view of the foregoing and other problems, disadvantages, and drawbacks of the

conventional methods and structures, an object of the present invention is to provide a method

and structure in which an "e-store assistant" automatically (or on-demand) determines whether a

10 visitor (user) to an e-commerce site is "lost" in looking for an item in the store, and in which the

e-store assistant helps the visitor out.

In a first aspect of the present invention, a method (and system) for conducting electronic

commerce, includes browsing, by a user, for an item over an electronic medium, recognizing that

the user is lost in attempting to find the item, and interactively querying, at any time during a

15 session, the user whether the user needs help in finding the item.

In a second aspect of the present invention, a method of conducting electronic commerce,

includes electronically browsing, by a user, an electronic store, the store automatically registering

the user with an electronic store assistant, navigating, by the user, the electronic store, tracking

the user's inputs including any of requests, queries, and clicks made by the user, determining

20 whether the user seems lost based on the tracking of the user's inputs, and launching, by the

electronic store assistant, a help resource for asking the user whether the assistant can be of some

help for the user.

In a third aspect of the present invention, a method of providing help in an electronic commerce transaction, includes browsing an electronic store by a user for an item by navigating to a hierarchy of categories, based on the navigating, judging whether a user is lost in attempting to find the item, and based on the judging, interacting with the user to provide help to the user in finding the item sought.

With the unique and unobvious aspects and features of the present invention, shopping aisle categories are decided a-priori by the e-store system as to what kind of items go into each category and sub-category and so on. When the user ends up in a wrong category and types in a word or a phrase of an item that belongs to a different category, the system detects such an occurrence, and the electronic shopping assistant directs the visitor to the right category in which the visitor can find the item.

In another aspect of the present invention, if the user does not have an exact description of the product, the system accumulates the search requests and checks them against the abstract describing each of the aisles and automatically directs the user to one or a couple of aisles where the item may be found.

In another aspect of the present invention, if the user is searching for an item by going from category to category or category to subcategory (e.g., audio equipment, to CD players, to car stereos, to speakers, etc.) without picking any item, the system determines (speculates) that the user has been browsing the aisles related to audio equipment but has not specified any particular requirement. In this case, the system can direct such a user to a real human being in the store who is an expert in "audio stuff". This expert can set up a chat session with the user, and can ask the user what he or she would be interested in and gives some advice on such a thing.

Thus, an e-store assistant according to the invention, is different from a general "Help" or "tips" or "search" or "FAQ" mechanism available on web sites where the user has to explicitly go to the "Help" facility and look for information on what the user is looking for. In addition, the information provided by these facilities is "static" in nature.

5   Browsing an electronic store is much more complex than general browsing of the web because the user is looking for specific items and the items are typically pre-categorized. In a complex e-store, users can become lost browsing as they are looking for a particular item. Different e-stores have different styles of categorizing (similar to a regular store) based on manufacturer, product type, etc. An e-store assistant will monitor the mouse clicks or queries

10   typed in by the user to see if a user is lost and if so will automatically come to help the user.

An e-store assistant typically keeps track of shopper navigational behaviors and previous-visit histories in its database by logging the user's texts and queries typed in and mouse clicks over the clickable items (like hyperlinks) corresponding to the different items, categories and aisles in the e-store.

15   In the invention, as the e-shopper browses over different categories, comes back to the same category, issues a lot of query requests of related terms and seems dissatisfied (e.g., this is discovered because the shopper does not pick an item to buy from the search results), the e-store assistant can be launched, activated, and can ask the shopper "May I help you?". This would be an advantageous alternative to having to call the 1-800 number of the e-store site for better

20   information, especially given that many users typically share a telephone line between their computer and their voice communications thereby requiring a user to end their shopping session and go off-line to make such a call.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other purposes, aspects and advantages will be better understood from the following detailed description of a preferred embodiment of the invention with reference to the drawings, in which:

Figure 1 illustrates a schematic block diagram of a system 100 according to the present invention;

Figure 2 schematically illustrates a block diagram of the shopping assistant according to the present invention;

Figure 3 illustrates a method 300 of detecting whether a user is lost while conducting an electronic shopping session;

Figure 4 illustrates an exemplary hardware/information handling system 400 for incorporating the present invention therein; and

Figure 5 illustrates a signal bearing medium 500 (e.g., storage medium) for storing steps of a program of the method 300 according to the present invention.

DETAILED DESCRIPTION OF PREFERRED

EMBODIMENTS OF THE INVENTION

Referring now to the drawings, and more particularly to Figures 1-5, there are shown

preferred embodiments of the method and structures according to the present invention.

FIG. 1 illustrates an environment and system 100 for use in the environment of the present invention for an electronic shopping experience.

As shown in Figure 1, the system 100 includes an electronic store 101, a shopping assistant 102, and a computer (and browser installed thereon) 103 for access by a user 104.

Optionally, the system 100 may include a personalized database 105 unique to the user and which may be activated when the user logs onto the system (e.g., the personalized database keeps information particular to the user, his buying habits, clicking habits, navigational approach, the items the user browses for and then eventually purchases, etc.).

The shopping assistant 102 may be implemented in software as a program (or search window) which is activated based on a query or which can be activated automatically after a predetermined number of navigations/mouse clicks. Moreover, the assistant 102 could simply be a software dialer which dials up a telephone number of a customer support center.

Basically, the assistant takes the history of the browser based on the query that the user has typed in, determines whether the user is lost, and then routes it to the right (relevant) kind of software (or calls an external help facility) to help the user.

Figure 2 illustrates the assistant 102 in greater detail including a user-lost detector 102A for detecting whether the user appears lost, a database 102B for being accessed by the user-lost detector to assist in determining whether the user is lost, a router 102C for routing the user for access (e.g., launching the user) to either an internal help facility 102D or an external (e.g., external to the system) help facility 102E. The help facility may include a live person, a chat program, etc. Database 102B may be same as personalized database 105 in Figure 1 but in addition may be a general purpose database of information about how the store is organized,

containing store specific information, information about other users, whether the user has been e-assisted before and the user's own browsing and buying patterns, etc.

Turning to Figure 3 which illustrates the method 300 of the invention, in operation, in step 301 the user 104 visits (e.g., comes into) the e-store 101 and starts browsing. As the user

5 registers, the store registers the user with the e-store assistant.

In step 302, it is determined whether the user has turned off the e-Store assistant. If "YES", then the process exits to step 307 and the user is allowed to shop without any external input/help. If "NO", the process continues to steps 303 and 304.

In step 303, the user navigates the e-Store by clicking on various categories and issues

10 search requests, etc.

In step 304, as the user types in requests, queries, clicks, etc., the system keeps track of the inputs.

In step 305, it is determined whether the user seems lost based on predetermined criteria set-up in advance by the system.

15 That is, when the store assistant software agent is sufficiently convinced (based on a predetermined algorithm or criteria) (e.g., similar queries were typed in, or the same categories were visited or too many related categories were visited) that the user is lost, the process continues to step 306. If the determination in step 305 is "NO", then the process loops back to step 302 to determine whether the user has turned off the e-Store assistant.

20 Assuming a "YES" in step 305, the process continues to step 306 in which the e-store assistant comes onto the browser and either starts a software program (or requests a chat session or a similar interactive program) and asks the user whether the assistant may be of some help in finding the product or service for the user.

As mentioned above, the user may optionally turn off the agent or refuse to participate in a chat session. If the user does participate, then a dialog is established between the user and the agent in step 306.

It is noted that, with the unique and unobvious aspects and features of the present invention, shopping aisle categories can be decided "a-priori" by the e-store system as to what kind of items go into each category and sub-category and so on. When the user travels to a wrong category and types in a word or a phrase of an item that belongs to a different category, the system can detect such an occurrence (e.g., by comparison with the information held in database 102B), and the electronic shopping assistant points the visitor to the right category in which the visitor can find the item by internally passing the user queries through categories that the user has not visited and checking if the item that the user is looking for belongs to any of those categories. For instance, for a user looking for "light bulbs" in the "household item" categories, the system can run the same query against "hardware" or "electrical" category either based upon the fact that these two categories are related somehow or based upon the fact that the user has often visited the "electrical" category. If no such information can be drawn, the system can do an exhaustive search.

It is noted that the user may be proactive in asking for help or passive. That is, in a proactive mode, the user may detect he/she is lost or otherwise and goes immediately to the assistant and asks for help. Alternatively, the system (assistant) may recognize the user is lost and automatically generate a query window asking the user if he/she desires some help.

In another aspect of the present invention, if the user does not have an exact description of the product, then the system accumulates the search requests and checks them against the abstract describing each of the aisles and automatically directs the user to one or more aisles

where the item may be found by searching a database of product descriptions and synonyms. For instance, a person may look for a product by its brand name, or by what it is popularly known by, or by a similar name. That is, instead of "Detergent", the user may type in "washing soap" or "Tide".

In another aspect of the present invention, if the user is searching for an item by going from category to category or category to subcategory (e.g., audio equipment, to CD players, to car stereos, to speakers, etc.) without picking any item, the system figures that the user has been browsing the aisles related to audio equipment, but has not specified any particular requirement. In this case, the system can direct such a user to a real human being in the store who is an expert in "audio stuff". This expert can set up a chat session with the user, and asks the user what he or she would be interested in and gives some advice on such a thing.

As mentioned above, the inventive e-store assistant is different from a general "help" or "tips" or "search" or "FAQ" mechanism available on web sites where the user has to explicitly go to the "Help" facility and look for information on what the user is looking for. In addition, the information provided by these facilities is "static" or fixed in nature. Frequently asked questions are fixed and are updated infrequently and are typically too general in nature.

An e-store assistant typically keeps track of shopper navigational behaviors and previous-visit histories in its (optional) personalized database 105.

As the e-shopper browses over different categories, comes back to the same category, issues a lot of query requests of related terms and seems dissatisfied (e.g., this is discovered because the shopper does not pick an item to buy from the search results), the e-store assistant can activate, and asks the shopper "May I help you?".

Along with the methods above, a lost user can be detected easily by the invention. That

is, all e-Stores have a search interface where the user can look for product information. If the user repeatedly types in new search words on the search windows, this would indicate being lost. Obviously, other criteria or indicia of "being lost" could be used. The e-Store assist engine can keep track of the words typed in and if the number of searches tried by the user exceeds some

5   threshold the system can automatically activate the e-Store assistant.

Further, the business prospects of the e-commerce site are improved as it attracts more shoppers looking for a real shopping experience, and makes for a pleasant shopping experience where shoppers get free advice and do not waste time looking for things in an e-Store.

Thus, with the unique and unobvious features of the present invention, a facility is

10   provided which brings the shopping experience closer to a normal, traditional shopping experience by allowing an e-Store assistant to help a lost shopper.

Figure 4 illustrates a typical hardware configuration of an information handling/computer system in accordance with the invention and which preferably has at least one processor or central processing unit (CPU) 411.

15   The CPUs 411 are interconnected via a system bus 412 to a random access memory (RAM) 414, read-only memory (ROM) 416, input/output (I/O) adapter 418 (for connecting peripheral devices such as disk units 421 and tape drives 440 to the bus 412), user interface adapter 422 (for connecting a keyboard 424, mouse 426, speaker 428, microphone 432, and/or other user interface device to the bus 412), a communication adapter 434 for connecting an

20   information handling system to a data processing network, the Internet, an Intranet, a personal area network (PAN), etc., and a display adapter 436 for connecting the bus 412 to a display device 438 and/or printer 439.

In addition to the hardware/software environment described above, a different aspect of

the invention includes a computer-implemented method for performing the above method. As an example, this method may be implemented in the particular environment discussed above.

Such a method may be implemented, for example, by operating a computer, as embodied by a digital data processing apparatus, to execute a sequence of machine-readable instructions. These instructions may reside in various types of signal-bearing media.

Thus, this aspect of the present invention is directed to a programmed product, comprising signal-bearing media tangibly embodying a program of machine-readable instructions executable by a digital data processor incorporating the CPU 411 and hardware above, to perform the method of the invention.

This signal-bearing media may include, for example, a RAM contained within the CPU 411, as represented by the fast-access storage for example. Alternatively, the instructions may be contained in another signal-bearing media, such as a magnetic data storage diskette 500 (Figure 5), directly or indirectly accessible by the CPU 411.

Whether contained in the diskette 500, the computer/CPU 411, or elsewhere, the instructions may be stored on a variety of machine-readable data storage media, such as DASD storage (e.g., a conventional "hard drive" or a RAID array), magnetic tape, electronic read-only memory (e.g., ROM, EPROM, or EEPROM), an optical storage device (e.g. CD-ROM, WORM, DVD, digital optical tape, etc.), paper "punch" cards, or other suitable signal-bearing media including transmission media such as digital and analog and communication links and wireless.

In an illustrative embodiment of the invention, the machine-readable instructions may comprise software object code, compiled from a language such as "C", etc.

While a preferred embodiment of the present invention has been described above, it should be understood that it has been provided as an example only. Thus, those skilled in the art

will recognize that the invention can be practiced with modification within the spirit and scope of

the appended claims.

CLAIMS

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1. A method for conducting electronic commerce, comprising:

   browsing, by a user, for an item over an electronic medium;

   recognizing that the user is lost in attempting to find said item; and

   interactively querying, at any time during a session, said user whether the user needs help in finding said item.

2. The method of claim 1, further comprising:

   logging into a computer system by the user.

3. The method of claim 1, wherein said browsing comprising navigating to a hierarchy of categories.

4. The method of claim 1, wherein said recognizing includes detecting by an e-Store assistant that the user is lost, said querying being performed by said e-Store assistant.

5. The method of claim 1, wherein said recognizing includes said user recognizing that the user is lost and said user requesting help from an e-Store assistant.

6. The method of claim 5, wherein said e-Store assistant is implemented in software as one of a program and a search window which is activated based on one of a query and activated automatically after a predetermined number of navigations by said user.

7. The method of claim 5, wherein said e-Store assistant comprises a software dialer which dials up a telephone number of a customer support center.

8. The method of claim 1, further comprising:

    considering the history of the browser based on a query that said user has typed in;

    determining whether the user is lost; and

    routing said user to a help resource to help the user.

9. The method of claim 8, wherein said help resource comprises one of a live person and a chat program.

10. A method of conducting electronic commerce, comprising:

    electronically browsing, by a user, an electronic store, said store automatically registering the user with an electronic store assistant;

    navigating, by the user, the electronic store;

    tracking the user's inputs including any of requests, queries, and clicks made by the user;

    determining whether the user seems lost based on the tracking of the user's inputs; and

    launching, by the electronic store assistant, a help resource for asking the user whether the assistant can be of some help for the user.

11. The method of claim 10, further comprising:

   determining whether the user has turned off the electronic store assistant; and

   if it is determined that the electronic store assistant has been turned off, then allowing the

user to shop without any external input.

12. The method according to claim 10, further comprising:

   turning off, by the user, the electronic store assistant.

13. The method according to claim 10, further comprising:

   refusing, by the user, to participate in an operation by the help resource.

14. The method according to claim 10, further comprising:

   deciding shopping aisle categories as a priority by the electronic store as to what kind of

items go into each category and sub-category; and

   detecting an occurrence of when the user travels to a wrong category and types in a word

or a phrase of an item that belongs to a different category, and pointing the user to a right

category in which the user can find the item.

15. The method according to claim 10, further comprising:

   proactively asking, by the user, for help.

16. The method according to claim 10, further comprising:

recognizing by the electronic store that the user is lost and automatically generating a

query window asking the user if the user desires some help.

17. The method according to claim 10, further comprising:

if the user does not have an exact description of the product, then accumulating, by the

electronic store, search requests and checking the search requests against the abstract describing

each of a plurality of aisles of the electronic store and automatically directing the user to at least

one aisle where the item may be found.

18. The method according to claim 10, further comprising:

if the user is determined to be searching for an item by traversing from category to

category or category to subcategory without selecting any item, then determining that the user is

browsing the aisles related to a predetermined item, but has not specified any particular

requirement; and

directing the user to a live help facility located in the electronic store, wherein said live

help facility sets up a chat session with the user.

19. The method according to claim 10, further comprising:

monitoring, by the electronic store assistant, the mouse clicks or queries typed in by the

user to judge if a user is lost, and, if so, automatically being launched to help the user.

20. The method according to claim 10, further comprising:

tracking the user's navigational behaviors and previous-visit histories and storing the

histories in a personalized database.

21. The method according to claim 10, further comprising:

judging that the user is lost based on a predetermined number of queries and mouse clicks

being performed without an item being selected.

5   22. The method according to claim 10, further comprising:

judging that the user is lost when the user repeatedly types in new search words on search

windows; and

keeping track of the search queries made by the user such that if the number of searches

tried by the user exceeds a predetermined threshold, then automatically activating an e-Store

10   assistant.

23. A method of providing help in an electronic commerce transaction, comprising:

browsing an electronic store by a user for an item by navigating to a hierarchy of

categories;

based on said navigating, judging whether a user is lost in attempting to find said item;

15   and

based on said judging, interacting with said user to provide help to said user in finding the

item sought.

24. The method according to claim 23, further comprising:

tracking keystrokes and mouse clicks of said user during said navigating and storing said

tracking in a personalized database for said user.

25. The method of claim 23, wherein said interacting is performed, at any time during an

electronic commerce session, between the user and an electronic store assistant for providing said

help.

5   26. A system for performing electronic commerce, comprising:

        means for browsing, by a user, for an item over an electronic medium;

        means for recognizing that the user is lost in attempting to find said item; and

        means for interactively querying, at any time during a session, said user whether the user

needs help in finding said item.

10   27. A   signal-bearing medium tangibly embodying a program of machine-readable instructions

executable by a digital processing apparatus to perform a method of conducting electronic

commerce, said method comprising:

        browsing, by a user, for an item over an electronic medium;

        recognizing that the user is lost in attempting to find said item; and

15   interactively querying, at any time during a session, said user whether the user needs help

in finding said item.

SYSTEM AND METHOD FOR AN ELECTRONIC STORE ASSISTANT

ABSTRACT OF THE DISCLOSURE

A method and system for conducting electronic commerce, includes browsing, by a user, for an item over an electronic medium, recognizing that the user is lost in attempting to find the item, and interactively querying, at any time during a session, the user whether the user needs help in finding the item.
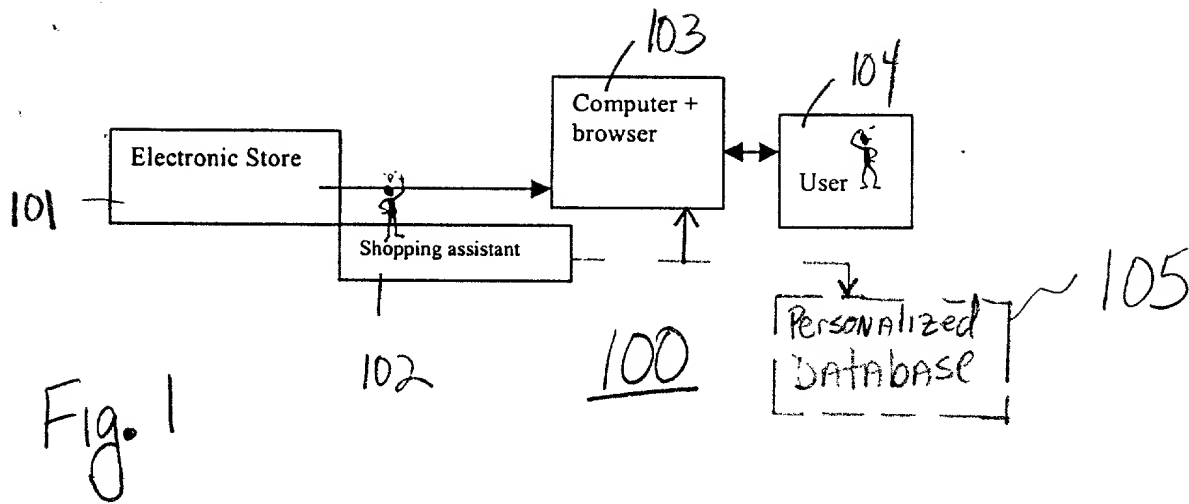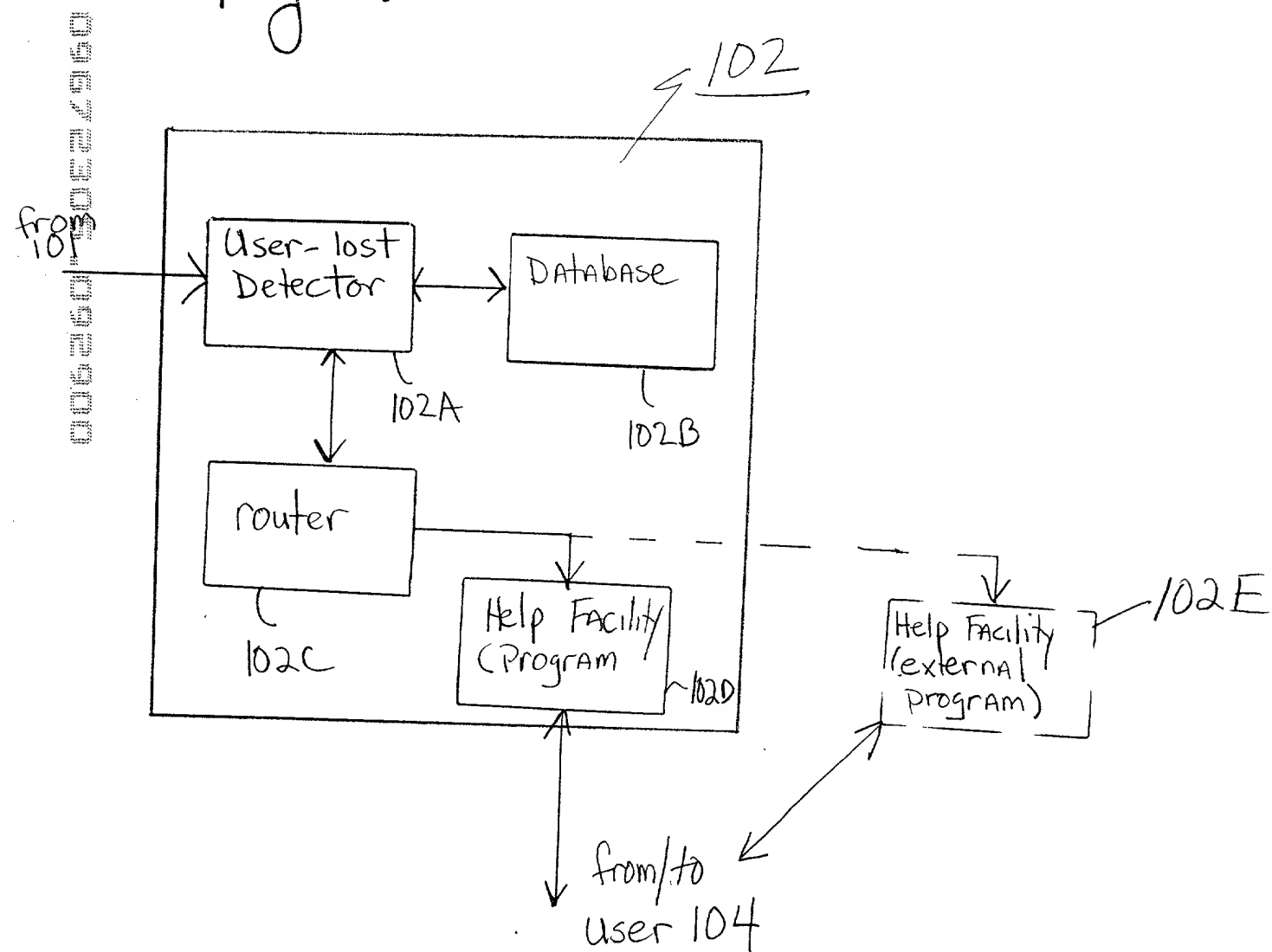
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Fig. 1

Electronic Store

101

Shopping assistant

102

Computer + browser 103

User 104

100

Personalized Database 105

Fig. 2

102

from 101

User-lost Detector 102A

Database 102B

router 102C

Help Facility (Program) 102D

Help Facility (external program) 102E

from/to user 104

Start

301 — User visits the shopping site and registers or starts browsing the eStore aisles.

302 — Has the user turned off the eStore assistant? →YES→ Let the user shop in peace — 307

NO

303 — User navigates the eStore by clicking on various categories, issues search requests etc.

300

304 — The eStore assistant keeps track of these and has an algorithm that suggests that the user is lost

305 — Does the user seem lost? →NO→

YES

306 — Start a software program (could be a chat program) asking the question "can I help you?"

Fig. 3

FIG. 4

CPU 411

CPU 411

RAM 414

ROM 416

I/O ADAPTER 418

COMMUNICATIONS ADAPTER 434

NETWORK

440

421

412

USER INTERFACE ADAPTER 422

DISPLAY ADAPTER 436

438

424

426

430

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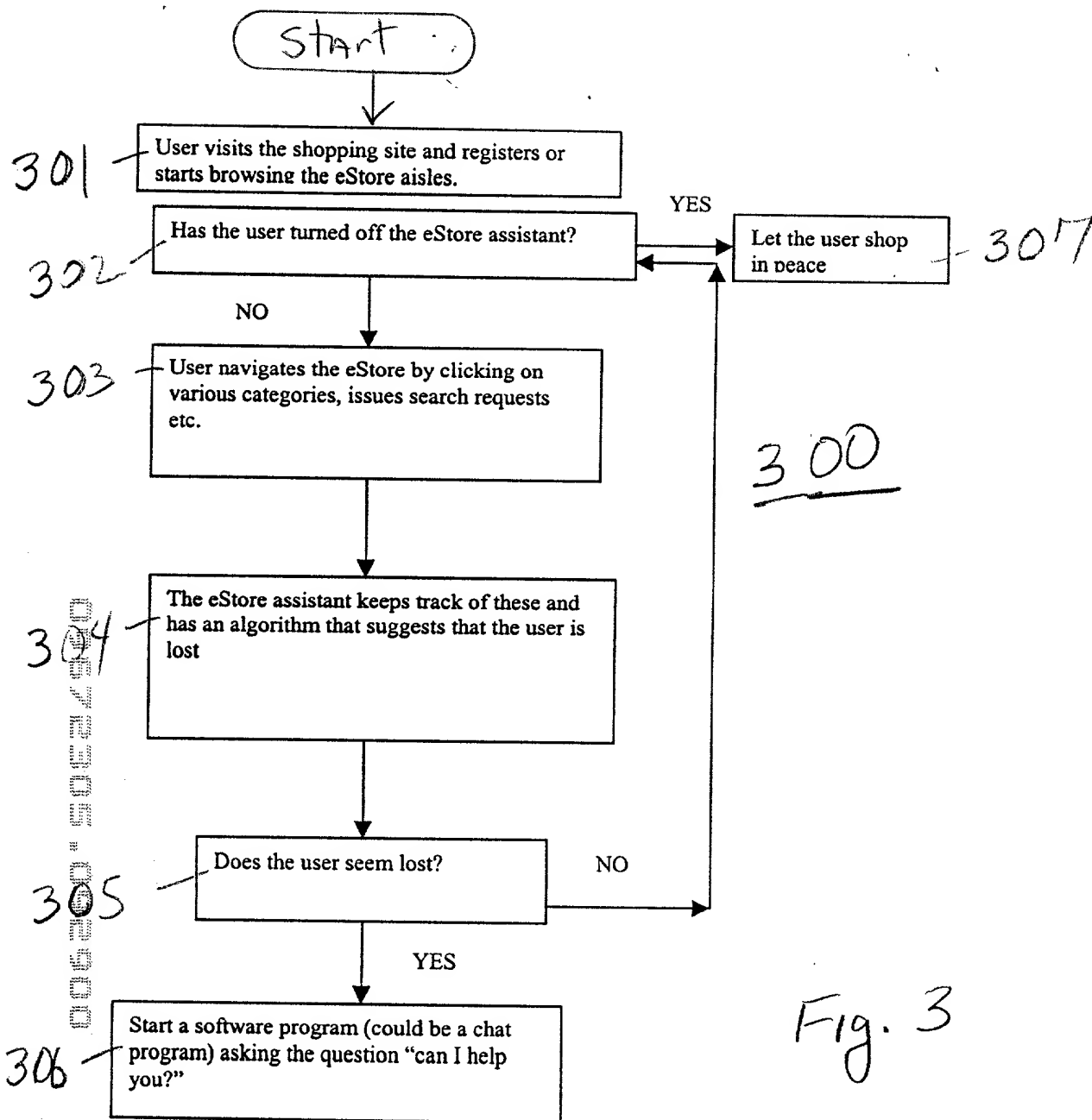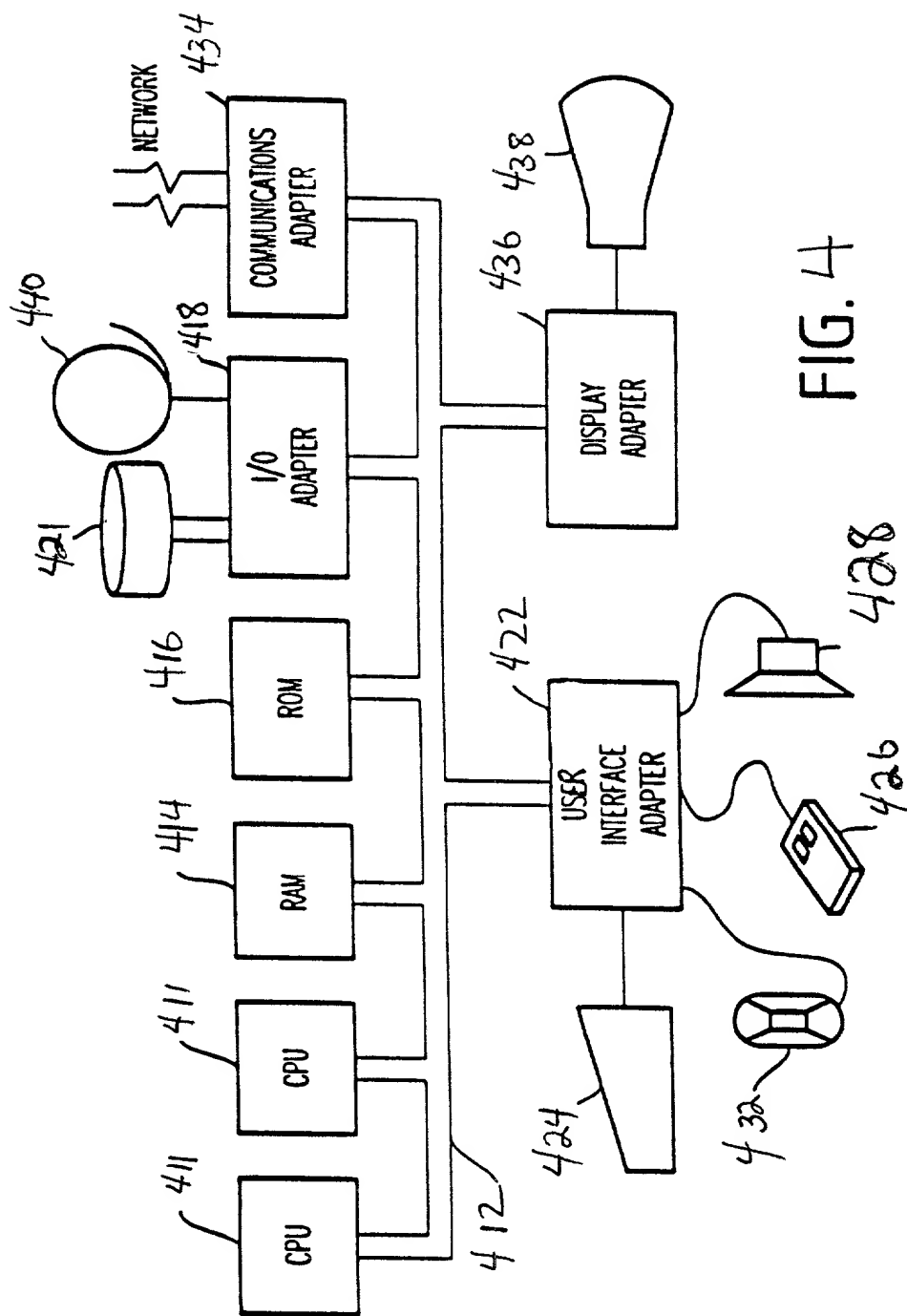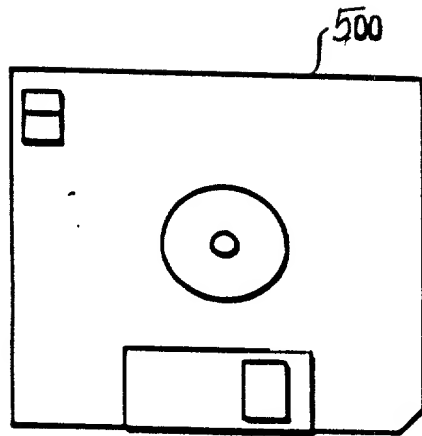
FIG. 5

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DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: SYSTEM AND METHOD FOR AN ELECTRONIC STORE ASSISTANT

the specification of which:
(check one)

               ☒ is attached hereto.
               ☐ was filed on _____, as Application Serial No. _____ and was amended on _____.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

    Prior Foreign Application(s):

Number	Country	Day/Month/Year	Priority Claimed

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

    Prior U.S. Applications:

Serial No.	Filing Date	Status

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

As a named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: We hereby appoint Khanh Q. Tran, Registration No. 41,352, Thomas R. Berthold, Registration No. 28,689, Marc McSwain, Registration No. 44,929, Alison D. Mortinger, Registration No. 39,306, and Sean M. McGinn, Registration No. 34, 386, and Frederick W. Gibb, III, Registration No. 37,629 to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.

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